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Kenichi Noma

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EXAMINER

MONIKANG, GEORGE C

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/578,346	Applicant(s) NOMA ET AL.	
	Examiner GEORGE C. MONIKANG	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 5 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-12 is/are allowed.
- 6) ☒ Claim(s) 1, 3-4, 6-7 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/578,346.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/5/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 2/15/2008, with respect to the rejection(s) of claim(s) 1-4 & 6-12 under 10/578,346 have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kato, JP 2003-051871.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 6-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Ikeda et al, US Patent 6,957,083 B2.
3. Re Claim 6, Ikeda et al discloses foldable portable terminal, comprising: a body/cabinet and a cover cabinet openably/closably coupled to each other (*fig. 1a*); a first speaker disposed in the cover cabinet (*fig. 1a: 103*); one or more sound emitting holes for passing a sound wave emitted from the first speaker (*fig. 1a: 103*), provided on an inner surface of the cover cabinet in a position opposed to a sound emitting surface of the first speaker (*fig. 1a: 103*); one or more openings provided on an inner surface of

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the body cabinet in a position to be opposed to the sound emitting holes with the both cabinets closed (fig. 1a: 205); a microphone having a sound collecting surface facing the openings, disposed in the body cabinet (fig. 1a: 205); a second speaker for emitting a sound wave toward a rear surface of the cover cabinet (fig. 1a: 106), disposed in the cover cabinet; and closing means for closing the sound emitting holes in a closed state of the both cabinets, provided in the body cabinet (fig. 1b: when the cover cabinet is in a closed state, the sound emitting holes are closed), a partition wall for partitioning a first area having the first speaker disposed therein and a second area having the second speaker disposed therein (fig. 4; col. 6, lines 58-65; col. 8, lines 17-27), formed between these two areas inside the cover cabinet wherein the openings and the sound emitting holes are provided in positions to be slightly staggered in a closed state of the both cabinets (fig. 4; col. 6, lines 58-65; col. 8, lines 17-27), wherein the partition wall is formed by a rib projecting from one of two inner walls opposed to each other inside the cover cabinet toward the other inner wall (fig. 4; col. 6, lines 58-65; col. 8, lines 17-27), and a cushion member intervening between an end of the rib and the other inner wall (fig. 4; col. 6, lines 58-65; col. 8, lines 17-27).

Re Claim 7, Ikeda et al discloses foldable portable terminal, comprising: a body/cabinet and a cover cabinet openably/closably coupled to each other (fig. 1a); a first speaker disposed in the cover cabinet (fig. 1a: 103); one or more sound emitting holes for passing a sound wave emitted from the first speaker (fig. 1a: 103), provided on an inner surface of the cover cabinet in a position opposed to a sound emitting surface of the first speaker (fig. 1a: 103); one or more openings provided on an inner surface of

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the body cabinet in a position to be opposed to the sound emitting holes with the both cabinets closed (fig. 1a: 205); a microphone having a sound collecting surface facing the openings, disposed in the body cabinet (fig. 1a: 205); a second speaker for emitting a sound wave toward a rear surface of the cover cabinet (fig. 1a: 106), disposed in the cover cabinet; and closing means for closing the sound emitting holes in a closed state of the both cabinets, provided in the body cabinet (fig. 1b: when the cover cabinet is in a closed state, the sound emitting holes are closed), a partition wall for partitioning a first area having the first speaker disposed therein and a second area having the second speaker disposed therein, formed between these two areas inside the cover cabinet wherein the openings and the sound emitting holes are provided in positions to be slightly staggered in a closed state of the both cabinets (fig. 1a: 100), wherein the cover cabinet comprises an inner cabinet half forming the inner surface of the cover cabinet and a rear cabinet half forming the rear surface of the cover cabinet (fig. 4; col. 6, lines 58-65; col. 8, lines 17-27), joined to each other (fig. 4; col. 6, lines 58-65; col. 8, lines 17-27), and the partition wall is formed by a first projection projecting from the inner cabinet half (fig. 4; col. 6, lines 58-65; col. 8, lines 17-27), a second projection projecting from the rear cabinet half and being opposed to the first projection (fig. 4; col. 6, lines 58-65; col. 8, lines 17-27), and a seal member intervening between the both projections (fig. 4; col. 6, lines 58-65; col. 8, lines 17-27), wherein the first and second projections are in close contact with the seal member (fig. 4; col. 6, lines 58-65; col. 8, lines 17-27).

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Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 & 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al, US Patent 6,957,083 B2, in view of Kato, JP 2003-051871. (Kato reference is cited in IDS filed 5/5/2006)

6. Re Claim 1, Ikeda et al, discloses a foldable portable terminal comprising a body cabinet and a cover cabinet openably/closably coupled to each other (*fig. 1a*); a first speaker disposed in the cover cabinet (*fig. 1a: 103*); one or more sound emitting holes 22a for passing a sound wave emitted from the first speaker (*fig. 1a: 103*), provided on an inner surface of the cover cabinet in a position opposed to a sound emitting surface of the first speaker (*fig. 1a: 103*); one or more openings provided on an inner surface of the body cabinet in a position to be opposed to the sound emitting holes with the both cabinets closed (*fig. 1a: 205*); a microphone having a sound collecting surface facing

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the openings, disposed in the body cabinet (fig. 1a: 205); and a second speaker for emitting a sound wave toward a rear surface of the cover cabinet, disposed in the cover cabinet (fig. 1a: 106); but fails to disclose a closing means for closing the sound emitting holes in a closed state of the both cabinets, provided in the cover cabinet. However, Kato discloses a sensor for sensing if two cell phone covers are closed by being in contact with each other, where the transmission of sound is blocked off but if not in contact with each other, the transmission of sound is open (Kato, abstract: the sensor in Kato could be provided in the cover or body cabinet).

7. Taking the combined teachings of Ikeda et al and Kato as a whole, one skilled in the art would have found it obvious to modify the foldable portable terminal comprising a body cabinet and a cover cabinet openably/closably coupled to each other (fig. 1a); a first speaker disposed in the cover cabinet (fig. 1a: 103); one or more sound emitting holes 22a for passing a sound wave emitted from the first speaker (fig. 1a: 103), provided on an inner surface of the cover cabinet in a position opposed to a sound emitting surface of the first speaker (fig. 1a: 103); one or more openings provided on an inner surface of the body cabinet in a position to be opposed to the sound emitting holes with the both cabinets closed (fig. 1a: 205); a microphone having a sound collecting surface facing the openings, disposed in the body cabinet (fig. 1a: 205); and a second speaker for emitting a sound wave toward a rear surface of the cover cabinet, disposed in the cover cabinet (fig. 1a: 106) of Ikeda et al with a sensor for sensing if two cell phone covers are closed by being in contact with each other, where the transmission of sound is blocked off but if not in contact with each other, the transmission of sound is

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open (*Kato, abstract: the sensor in Kato could be provided in the cover or body cabinet*) as taught in Kato to provide a foldable portable device with hands-free speech.

Re Claim 3, Ikeda et al discloses foldable portable terminal, comprising: a body/cabinet and a cover cabinet openably/closably coupled to each other (*fig. 1a*); a first speaker disposed in the cover cabinet (*fig. 1a: 103*); one or more sound emitting holes for passing a sound wave emitted from the first speaker (*fig. 1a: 103*), provided on an inner surface of the cover cabinet in a position opposed to a sound emitting surface of the first speaker (*fig. 1a: 103*); one or more openings provided on an inner surface of the body cabinet in a position to be opposed to the sound emitting holes with the both cabinets closed (*fig. 1a: 205*); a microphone having a sound collecting surface facing the openings, disposed in the body cabinet (*fig. 1a: 205*); a second speaker for emitting a sound wave toward a rear surface of the cover cabinet (*fig. 1a: 106*), disposed in the cover cabinet; wherein the openings and the sound emitting holes are provided in positions to be slightly staggered in a closed state of the both cabinets (*fig. 1a: 103 & 205*), but fails to disclose closing means for closing the sound emitting holes in a closed state of the both cabinets, provided in the body cabinet, the closing means comprises a projection formed within an inner surface area of the body cabinet in a position to face the sound emitting holes in a closed state of the both cabinets, the projection closing the sound emitting holes in the closed state of the both cabinets, and separating from the sound emitting holes with the cover cabinet opened. However, Kato discloses a sensor for sensing if two cell phone covers are closed by being in contact with each other, where the transmission of sound is blocked off but if not in contact with each other, the

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transmission of sound is open (Kato, abstract: the sensor in Kato could be provided in the cover or body cabinet).

8. Taking the combined teachings of Ikeda et al and Kato as a whole, one skilled in the art would have found it obvious to modify the foldable portable terminal, comprising: a body/cabinet and a cover cabinet openably/closably coupled to each other (fig. 1a); a first speaker disposed in the cover cabinet (fig. 1a: 103); one or more sound emitting holes for passing a sound wave emitted from the first speaker (fig. 1a: 103), provided on an inner surface of the cover cabinet in a position opposed to a sound emitting surface of the first speaker (fig. 1a: 103); one or more openings provided on an inner surface of the body cabinet in a position to be opposed to the sound emitting holes with the both cabinets closed (fig. 1a: 205); a microphone having a sound collecting surface facing the openings, disposed in the body cabinet (fig. 1a: 205); a second speaker for emitting a sound wave toward a rear surface of the cover cabinet (fig. 1a: 106), disposed in the cover cabinet; wherein the openings and the sound emitting holes are provided in positions to be slightly staggered in a closed state of the both cabinets (fig. 1a: 103 & 205) of Ikeda et al with a sensor for sensing if two cell phone covers are closed by being in contact with each other, where the transmission of sound is blocked off but if not in contact with each other, the transmission of sound is open (Kato, abstract: the sensor in Kato could be provided in the cover or body cabinet) as taught in Kato to provide a foldable portable device with hands-free speech.

Re Claim 4, which further recites, "Wherein the projection is formed from an elastic resin." The combined teachings of Ikeda et al and Kato fail to explicitly disclose

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an elastic resin as claimed. Official notice is taken that both the concepts and advantages of using a projection formed of an elastic resin are well known in the art. Thus it would have been obvious to use an elastic resin since it would reduce frictional damage between the cover cabinet and body cabinet.

Allowable Subject Matter

1. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

2. The following is a statement of reasons for the indication of allowable subject matter for claim 2: The prior art does not teach or moderately suggest the following limitations:

The closing means comprises a shutter mechanism for opening/closing the sound emitting holes in accordance with the detection, the shutter mechanism comprising a shutter member supported so as to be capable of entering between opposed faces of the sound emitting surface of the first speaker and the sound emitting holes, and a drive mechanism for reciprocating driving the shutter member in accordance with the detection, the shutter member, with operation of the drive mechanism, entering between the opposed faces to close the sound emitting holes in the closed state of the both cabinets, and escaping from between the opposed faces to open the sound emitting holes in the open state of the both cabinets.

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Limitations such as these may be useful in combination with other limitations of claim 1.

Claims 8-12 are allowed.

Referring to claim 8, the Ikeda et al, reference (US Patent 6,957,083 B2) discloses a a foldable portable terminal comprising a body cabinet and a cover cabinet openably/closably coupled to each other (*figs. 1a & 1b*); a microphone (*fig. 1a: 205*) and a first speaker (*fig. 1a: 103*) disposed on inner surfaces of the body cabinet and the cover cabinet, respectively, in positions opposed to each other with the both cabinets closed (*figs. 1a & 1b*); and a second speaker disposed on a rear surface of the cover cabinet (*fig. 1b: 106*). The Ikeda et al reference taken alone or in combination with another does not disclose, teach or fairly suggest the microphone rotatably disposed at an end of the body cabinet and capable of facing a direction deviating from the cover cabinet in a closed position with the both cabinets closed.

Claims 9-12 depend on claim 8.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to GEORGE C. MONIKANG whose telephone number is (571)270-1190. The examiner can normally be reached on M-F. alt Fri. Off 7:30am-5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George C Monikang/
Examiner, Art Unit 2615

9/29/2008

/Vivian Chin/
Supervisory Patent Examiner, Art Unit 2615